

LOCATION: In McLennan County, R.M. 4.6 on Bosque River, Brazos River Basin, contiguous to city limits of Waco, Texas.

DRAINAGE AREA:

1,670 square miles

One inch of runoff 89,067 acre-feet

DAM:

Type: Earth fill with concrete spillway left bank

Length: 24,618' (including spillway)

Maximum Height: 140'

Top Width:

Embankment: 20'

Nonoverflow: 16'

SPILLWAY:

Crest Elev: 465.0' msl

Length: 560' net at crest

Type: Ogee

Control: 14-40'x35' tainter gates

INFLOW:

Spillway design flood peak, cfs 622,900

Spillway design flood volume, ac-ft 1,831,500

Spillway design flood runoff, inches 20.56

OUTFLOW:

Total routed peak outflow, cfs 584,200

Spillway, cfs 563,300

Outlet works, cfs 20,900

OUTLET WORKS:

Type: 1 gate controlled conduit

Dimension: 20' diameter

Invert Elev: 400.0' msl

Control: 3-6.67'x20' broome-type tractor sluice gates

POWER FEATURES:

None

Feature	Reservoir Capacity						
	Elev Feet (msl)	Reser- voir Area (acres)	Accumu- lative (ac-ft)	Runoff (inches)	Incre- mental (ac-ft)	Spillway Capacity (cfs)	Outlet Works Capacity (cfs)
Top of Dam	510.0						
Max Design Water Surface	505.0	21,390	828,300	9.30		563,300	20,900
Top of Flood Control Pool and Top of Gates	500.0	19,440	726,400	8.16	553,300	458,000	20,100
Spillway Crest	465.0	9,220	233,500	2.62			15,100
Top of Conservation Pool	455.0	7,270	152,500	1.71	104,100		13,400
Sediment Reserve					69,000*		
Total Storage					726,400		
Maximum Tailwater	431.6						
Streambed	370.0						

\*Estimated 50 years of sediment storage distributed as follows: 20,600 ac-ft between elev 500.0 and 455.0' msl  
34,000 ac-ft between elev 455.0 and 427.0' msl  
14,400 ac-ft below elev 427.0' msl

AUTHORIZATION: Flood Control Act of 3 Sep 54  
(PL 83-780) (HD 535/81/2).

FINAL PROJECT COST (JUL 71):

Federal:	\$52,417,125.25
Non-Federal:	250,000.00*
Total:	\$52,667,125.25

ANNUAL O&M COST (FY 81):

Federal:	\$ 752,600
Non-Federal:	25,100
Total:	\$ 777,700

COST ALLOCATION METHOD:

Use of facilities (pro rata)

LOCAL AGENCY: Brazos River Authority and city of  
Waco, Texas

LAND ACQUISITION:

	: Guide Contour ('msl):	Area (Acres)
Fee simple	470.0	15,038
Easement	503.0	7,105
Total		22,143

FLOOD DATA:

Date	Peak Discharge (cfs)
Sep 36	100,000
Apr 45	153,800
Apr 57	134,400
Jan 68	46,000
May 68	53,000

(Waco gage, Bosque River)

Minimum channel capacities:

Brazos at Waco:	65,000 cfs
Brazos, Waco to mouth:	60,000 cfs
Bosque River, dam to mouth (1):	30,000-50,000 cfs (2)

(1) Not at gaging station

(2) Depending on discharge in Brazos River

STATUS OF PROJECT: Construction contract for first  
increment of embankment awarded 13 Jun 58 with funds  
advanced by local interests. Deliberate impoundment  
began 26 Feb 65. Project is complete and operational.  
Recommendations made in FY 83 to increase water supply  
storage by 47,500 ac-ft.

\*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:

A contract with the Brazos River Authority was  
approved 15 Apr 58 for 87.487 percent (91,074 ac-ft)  
of the conservation storage between elevations 455.0  
and 427.0 ft msl. BRA will pay \$5,531,568.36 which  
includes the \$250,000 initial contribution, in addi-  
tion to their share of the annual O&M cost, for this  
water supply storage space.

A contract with the city of Waco was approved 15 Apr  
58 for 12.513 percent (13,026 ac-ft) of the conserva-  
tion storage between same elevations. The city of  
Waco received this water supply storage space in  
exchange for the city's right in Lake Waco which was  
inundated. The city of Waco pays for their share of  
the annual O&M cost for this water supply storage  
space.

REMARKS:

Dependable yield\*\*: 85 cfs or 54.9 MGD

\*\*Based on a critical dry period 1953-1955 and 50  
years of sedimentation.

Visitation (1981): 4,079,208

Shoreline at top of conservation pool: 60 miles